REMARKS

This paper is being provided in response to the Office Action dated February 24, 2006, for the above-referenced application. In this response, Applicant has amended Claims 1, 12, and 13 to clarify that which Applicant considers to be the invention. Applicant respectfully submits that the amendments to the claims are fully supported by the originally-filed specification.

The rejection of Claims 1-7, 12 and 13 under 35 U.S.C. 112, second paragraph, has been addressed by amendments to the claims provided herein in accordance with the guidelines set forth in the Office Action. Applicant has amended independent Claims 1 and 12 to clarify reference to the recited polarity control signal. Applicant has also amended Claim 13 to further clarify reference to the recited "plurality of signals" as being generated by the γ-correction section. This rejection is applied to Claims 2-7 due to their dependency upon Claim 1. By the amendments made herein to Claim 1, Applicant respectfully submits that this rejection as applied to Claims 2-7 is also overcome. In view of the foregoing, Applicant respectfully requests that this rejection be reconsidered and withdrawn.

The rejection of Claims 1 and 3-7, 12 and 13 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,160,533 to Tamai et al. (hereinafter "Tamai") is hereby traversed and reconsideration is respectfully requested in view of the amendments to the claims contained herein.

Independent Claim 1, as amended herein, recites an LCD control unit for driving an LCD panel in an LCD device. The LCD control unit includes a signal controller for generating a voltage address signal and a polarity control signal, a voltage generator block, directly coupled to

said signal controller, for internally generating a plurality of (n) γ-voltage levels and a plurality of (m) Vcom-voltage levels, an impedance converter block and an LCD driver. The voltage generator block includes a voltage selecting block, wherein output of the voltage generating block is selected by the voltage selecting block from the plurality of (n) γ-voltage levels and the plurality of (m) Vcom-voltage levels according to a value of the voltage address signal input to the voltage generator block. The impedance converter block, coupled to the signal controller and coupled to and separate from the voltage generator block, converts input impedances of the γ-voltage levels and the Vcom-voltage levels provided by the voltage generator block and provides as output a specified number of said γ-correction voltages and said Vcom voltage according to a value of said polarity control_signal. The LCD driver generates a set of display data signals based on a set of external data signals, wherein the LCD driver receives the specified number of said γ-correction voltages output from the impedance converter and includes a γ-correction section for correcting voltages of the display data signals based on the specified number of said γ-correction voltages. Claims 2-7 depend directly or indirectly on independent claim 1.

Independent Claim 12, as amended herein, recites a display control unit for driving a display panel in a display device. A signal controller generates a voltage address signal and a polarity control signal. A voltage generator block, directly coupled to said signal controller, internally generates a plurality of (n) γ-voltage levels and a plurality of (m) Vcom-voltage levels. The voltage generator block includes a voltage selecting block, wherein output of the voltage generating block is selected by the voltage selecting block from the plurality of (n) γ-voltage levels and the plurality of (m) Vcom-voltage levels according to a value of the voltage address signal input to thevoltage generator block. An impedance converter block, coupled to the signal controller and coupled to and separate from the voltage generator block, converts input

impedances of the γ-voltage levels and the Vcom-voltage levels provided by the voltage generator block and provides as output a specified number of the γ-correction voltages and the Vcom voltage according to a value of the polarity control signal. A display driver generates a set of display data signals based on a set of external data signals, wherein the display driver receives the specified number of the γ-correction voltages output from the impedance converter and includes a γ-correction section for correcting voltages of the display data signals based on the specified number of the γ-correction voltages. Claim 13 depends from independent Claim 12.

Tamai discloses a method and apparatus for driving a display panel. The system includes a reference voltage having a voltage level that increases or decreases stepwise with time. Gradation display is conducted by applying the voltage level at certain times to electrodes of the display panel. Multi-level gradation display is conducted without increasing the number of terminals to which voltage is inputted or the number of switching elements for applying the voltage to the electrodes. (See col. 5, lines 24-41 and col. 6, line 59 to col. 7, line 12 of Tamai). As set forth in the Office Action on page 4, Tamai discloses a voltage generator block (62) for generating a plurality of voltage levels, a voltage selecting block (61), and an impedance converter (Figure 4; AS1-8).

Applicant's Claim 1, as amended herein, recites a voltage generator block directly coupled to the signal controller. In contrast, Tamai discloses a voltage generator block 62 which is not directly coupled to a signal controller 39. Referring to Tamai's Figure 4, Tamai discloses that the component 62 is directly coupled to inverters 64 and 65 and component 63, but is not directly coupled to component 39 which the Office Action parallels to the signal controller as recited in Applicant's Claim 1. There does not appear to be any teaching in Tamai of having a

voltage generator block directly coupled to the signal controller, as recited in Applicant's amended Claim 1.

For at least these reasons, Applicant respectfully submits that Tamai neither discloses nor suggests Applicant's Claim 1.

For reasons similar to those set forth above regarding Claim 1, Applicant's Claim 12 is also neither disclosed nor suggested by Tamai since Claim 12 recites features similar to those set forth in Claim 1 which are neither disclosed nor suggested by Tamai.

In view of the foregoing, Applicant respectfully requests that this rejection be reconsidered and withdrawn.

The rejection of Claim 2 under 35 U.S.C. 103(a) as being unpatentable over Tamai in view of U.S. Patent No. 5,910,796 to Gormish (hereinafter "Gormish") is hereby traversed and reconsideration is respectfully requested in view of the amendments to the claims contained herein.

Claim 2 depends from independent Claim 1, discussed above. The Tamai reference is also discussed above.

The Gormish reference discloses a method of performing gamma correction for a display device. The Office Action at page 7 cites Gormish as disclosing software controlling and setting gamma correction signals.

Applicant respectfully submits that Gormish fails to overcome the above-noted deficiencies of Tamai with respect to Applicant's Claim 1. Thus, combining Tamai with Gormish also neither discloses nor suggests Claim 1. Accordingly, Applicant respectfully requests that this rejection be reconsidered and withdrawn.

Based on the above, Applicant respectfully requests that the Examiner reconsider and withdraw all outstanding rejections and objections. Favorable consideration and allowance are earnestly solicited. Should there be any questions after reviewing this paper, the Examiner is invited to contact the undersigned at 508-898-8603.

Respectfully submitted,
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